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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/779,320

02/12/2004

Vijay Pillai

903-017 (203132)

5245

24295

7590

11/01/2005

Rodney T. Hodgson, Ph.D.

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EXAMINER

BROWN, VERNAL U

ART UNIT

PAPER NUMBER

2635

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/779,320

Applicant(s)

PILLAI ET AL.

Examiner

Vernal U. Brown

Art Unit

2635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The application of Vijay Pillai for Frequency Hopping Method for RFID tag filed 2/12/2004 has been examined. Claims 1-11 are examined.

#### ***Information Disclosure Statement***

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

#### ***Specification***

The disclosure is objected to because of the following informalities: The foot note at the bottom of the pages of the specification should be removed. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under second paragraph of 35 U.S.C. 112.

The term substantial in claims 1-8 is a relative term which renders the claim indefinite. The term "substantial" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The examiner interprets substantial time to mean giving the transponder enough time to receive the interrogation signal and transmit a response.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Kenny et al. US Patent Application 20040036595.

Regarding claim 1, Kenny et al. teaches a method, comprising: sending power to at least one radio frequency (RF) identification (RFID) transponder (tag) by; a) sending power  $P_j$  for a first time  $t_j$  to the tag at a first frequency (paragraph 0026) ;

sending power  $P_{j+1}$  for a time  $t_{j+1}$  to the tag at a second frequency  $f_{j+1}$  which is the HF signal as shown in figure 2. The first signal is transmitted at low frequency and the second signal is transmitted at high frequency as shown in figure 2. Kenny et al. teaches the power transmitted by the base station is used to charge the battery of the tag (paragraph 0019). The tag therefore loses its function when the battery is charged and the signal from the base station is not

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received to recharge the battery. The time for transmitting the interrogation signal and receiving the response is considered long enough in order to allow the tag enough time to receive the interrogation signal and transmit a response to the base station and is therefore considered substantial.

Regarding claims 2-4, Kenny et al. teaches the base station transmits the interrogation signal and wait for a response (paragraph 0021, 0023). The time for transmitting the interrogation signal and receiving the response is considered long enough in order to allow the tag enough time to receive the interrogation signal and transmit a response to the base station. The signal along with the power associated with a particular frequency is no longer transmitted when a response from the tag is not received (paragraph 0035).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenny et al. US Patent Application 20040036595 as applied to claims 1-5 above, and further in view of Applicant admitted prior art.

Regarding claims 5, 9-11, Kenny et al. teaches transmitting the interrogation signal at a first frequency and a second frequency and the range of the interrogation signal is varied with the power and/or frequency (paragraph 0021) but is not explicit on teaching reducing the power  $P_j$  when the time  $t_j$  is too short and the power is a function of time. The applicant's admitted prior

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art on page 3 of the specification teaches the amount of power than can be pulsed in a particular frequency band for a short time is much higher than that which can be broadcasted continuously based on the regulation of the Federal Communications Commission. The transmitted power is therefore a function of time and is obvious to increase or decrease the transmitted power based on the time required to identify the tags in the interrogation field in order to satisfy the regulation of the Federal Communications Commission.

It would have been obvious to one of ordinary skill in the art to reduce the power  $P_j$  when the time  $t_j$  is too short and the power is a function of time in Kenny et al as evidenced by the Applicant Admitted prior art because Kenny et al. suggests transmitting the interrogation signal at a first frequency and a second frequency and the range of the interrogation signal is varied with the power and/or frequency and the applicant admitted prior art teaches the amount of power than can be pulsed in a particular frequency band for a short time is much higher than that which can be broadcasted continuously based on the regulation of the Federal Communications Commission and the transmitted power is therefore a function of time and is obvious to increase or decrease the transmitted power based on the time required to identify the tags in the interrogation field in order to satisfy the regulation of the Federal Communications Commission.

Regarding claims 6-8, Claims 6-8 represents an optimization of the claimed invention of changing the time the interrogation signal is broadcast at a certain frequency. When the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, since it has been held that discovering an optimum

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value of a result effective variable involves only routine skill in the art. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

It would have been obvious to one of ordinary skill in the art to optimize the time of the transmitted interrogation signal as claimed because when the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

U.S Patent No. 6,600418 to Francis et al.

U.S Patent No. 5446447 to Carney et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vernal U. Brown whose telephone number is 571-272-3060. The examiner can normally be reached on 8:30-7:00 Monday-Thursday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 571-272-3068. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vernal Brown  
October 27, 2005



BRIAN ZIMMERMAN  
PRIMARY EXAMINER